

AMENDMENT AND RESPONSE AND SUMMARY OF PERSONAL INTERVIEW WITH THE EXAMINER

Ser No. 10/666,573

February 1, 2005

Amendment

In the Specification:

At page 5, please amend the paragraph beginning at line 1, as follows:

--Possible ingredients of the coating composition of the invention are as follows:

- (a) A preferred phosphorous containing material which decomposes on contacting fire is ammonium polyphosphate obtainable as ~~Exelit~~EXOLITTM AP462 and AP422 from Clariant.
- (b) A hydroxylated thermosetting resin is a preferred binder component. The preferred thermosetting resins are epoxy resins and a suitable epoxy resin is a ~~diglycidyl~~diglycidyl ether of bisphenol A (Molecular Weight approximately 1800) known as 663 UE obtainable from the Dow Chemical Company. The thermosetting resin also serves to control the stiffness of the coating.
- (c) A suitable curing agent (epoxy hardener) for the thermosetting epoxy resin is a phenolic resin DEH 82 which again is obtainable from the Dow Chemical Company.
- (d) Preferred thermoplastic binders are aldehyde and ketone resins. A suitable ~~aldehydeketone~~ resin is LAROPALTM Laropal A81 and a further suitable aldehyde resin is LAROPALTM Laropal A101 both obtainable from BASF. A81 ~~ketone resin~~ and A101 aldehyde ~~resins~~resin have a very low melt viscosity which can assist the extruder processing of the coating ingredients. The A81 resin and/or A101 gives plasticity to the binder system and this increased plasticity makes for easier foaming of the carbonaceous material when formed.
- (e) The optional melt viscosity modifier is an extrusion aid, e.g. hydrogenated castor oil obtainable as ThixeinTM THIXCINTM from Rheox. The hydrogenated castor oil reduces the viscosity of the binder system during the extrusion process and during the coalescence phase of the curing cycle.
- (f) A colouring agent may be included in the coating composition to impart colour and opacity to the paint. The white pigment titanium dioxide can be used and since titanium dioxide is a high temperature resistant mineral (manufactured by

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calcination at approximately 1000°C) it also assists in maintaining the structure of the char.

(g) Other materials which can be included in the coating composition of the invention are:

- (i) china clay (e.g. bentonite) as a stabilising agent;
- (ii) melamine phosphate as a stabilising agent, additional blowing agent and additional source of phosphorous material;
- (iii) vitrifiers, e.g. zinc borate;
- (iv) metal salts to impart various properties; and
- (v) melamine to give enhanced blowing effect--

Please amend the Table on page 7, line 7 of the instant specification, as follows:

Ex	Epoxy Resin	Phenolic Curing Agent	Aldehyde Ketone Resin	THIXCIN™ Thixein	Ammonium Polyphosphate	TiO ₂
1	18.0	6.0	10.0	3.5	55.0	7.5
2	18.0	6.0	10.0	3.5	57.5	5.0
3	15.0	5.0	14.0	3.5	57.5	5.0
4	18.0	6.0	6.5	7.0	57.5	5.0
5	16.5	5.5	8.5	7.0	57.5	5.0
6	22.5	7.5	15	-	50.0	5.0

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Please amend the paragraph at page 7, lines 7-8 of the instant
specification, as follows:

--The aldehydeketone resin of the above Examples can be replaced with a
ketonean aldehyde resin to give similar effects.--